

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

Claim 1. (Currently amended): An endoluminal prosthesis comprising:

a proximal end, a distal end and a hollow tubular body having a central longitudinal axis, the body comprising a stent scaffold having V-shaped or quadrilateral-shaped cells, the stent scaffold consisting essentially of helically wound undulating wires having alternating peaks and valleys to define turns thereat;

the hollow tubular body comprising at least one segment of curvature along a portion of a longitudinal length of the body, wherein the central longitudinal axis of the body is curved along said portion of the longitudinal length of the body throughout the segment of curvature;

the segment of curvature comprising an inside of the curvature and an outside of the curvature;

wherein the wires and their turns are distributed substantially equally and uniformly displaced along the length of the prosthesis, including being distributed substantially equally and uniformly displaced along the length of the segment of curvature, to provide a constant pitch of the wires therealong.

Claim 2. (Previously presented): The prosthesis of claim 1 wherein the segment of curvature is curved in at least one plane with respect to the central axis of the body.

Claim 3. (Previously presented): The prosthesis of claim 1 wherein the segment of curvature is curved in at least two planes with respect to the central axis of the body.

Claim 4. (Previously presented): The prosthesis of claim 1 wherein the hollow tubular body has at least two segments of curvature wherein the segments of curvature are located in

successive progression along the body of the prosthesis and the segments are curved within the same plane of curvature.

Claim 5. (Previously presented): The prosthesis of claim 1 wherein hollow tubular body has at least two segments of curvature wherein the segments of curvature are located in successive progression along the body of the prosthesis and the segments are curved within different planes of curvature.

Claim 6. (Previously presented): The prosthesis of claim 1 wherein the hollow tubular body has at least two segments of curvature wherein the segments of curvature overlap at least a portion of one another and the segments of curvature are curved within different planes of curvature.

Claim 7. (Original): The prosthesis of claim 1 comprising both segments of curvature which overlap and segments of curvature which do not overlap.

Claim 8. (Original): The prosthesis of claim 1 wherein the prosthesis comprises at least one segment of curvature to approximate an anatomical shape.

Claim 9. (Original): The prosthesis of claim 8 wherein the prosthesis approximates the anatomical shape of the anatomical site intended for placement of the prosthesis.

Claim 10. (Canceled)

Claim 11. (Previously presented): The prosthesis of claim 1 wherein the wires comprise a shape memory alloy.

Claim 12. (Previously presented): The prosthesis of claim 1 wherein the wires comprise a super elastic alloy.

Claim 13. (Previously presented): The prosthesis of claim 1 wherein the wires comprise a polymer.

Claim 14. (Previously presented): The prosthesis of claim 1 wherein the wires are nitinol.

Claim 15. (Previously presented): The prosthesis of claim 1 wherein the peaks of adjacent undulating wires are interconnected.

Claim 16. (Canceled)

Claim 17. (Original): The prosthesis of claim 1 wherein the hollow tubular body comprises a thin-walled tube material wherein the center of the thin-walled tube provides the center of the prosthesis.

Claim 18. (Original) The prosthesis of claim 1 wherein the prosthesis further comprises at least one taper along the length of the body.

Claim 19. (Original): The prosthesis of claim 1 wherein the prosthesis further comprises at least one aperture on the body between the proximal end and the distal end.

Claim 20. (Original): The prosthesis of claim 1 wherein the prosthesis further comprises at least one non-circular cross-section along the length of the body.

Claim 21. (Original): The prosthesis of claim 1 wherein the prosthesis further comprises at least one branch of the prosthesis that extends away from the body of the prosthesis.

Claim 22. (Original): The prosthesis of claim 1 wherein at least a portion of the prosthesis is covered with a graft covering.

Claim 23. (Currently amended): An endoluminal prosthesis comprising:
a proximal end, a distal end and a hollow tubular body having a central longitudinal axis, the body comprising a stent scaffold having V-shaped or quadrilateral-shaped cells consisting essentially of helically wound undulating wires having alternating peaks and valleys to define turns thereat;

the hollow tubular body comprising at least one segment of curvature along a portion of a longitudinal length of the body, wherein the central longitudinal axis of the body is curved along said portion of the longitudinal length of the body throughout the segment of curvature;

the segment of curvature comprising an inside of the curvature and an outside of the curvature;

wherein the wires and their turns are distributed substantially equally and uniformly displaced along the length of the prosthesis, including being distributed substantially equally and uniformly displaced along the length of the segment of curvature;

wherein the wires have an increased pitch at the outside segment and have a reduced pitch at the inside segment when disposed on a straight mandrel;

and further wherein the hollow tubular body is geometrically shaped and sized to approximate an anatomical shape.

Claim 24. (Original): The prosthesis of claim 23 wherein the prosthesis approximates the anatomical shape of the anatomical site intended for placement of the prosthesis.

Claim 25-26 (Canceled)

Claim 27. (Previously presented): The prosthesis of claim 23 wherein the wires comprise a shape-memory alloy.

Claim 28. (Previously presented) The prosthesis of claim 23 wherein the wires comprise a super elastic alloy.

Claim 29. (Previously presented): The prosthesis of claim 23 wherein the wires comprise a polymer.

Claim 30. (Previously presented): The prosthesis of claim 23 wherein the wires are nitinol.

Claim 31. (Previously presented) The prosthesis of claim 23 wherein the peaks of adjacent undulating wires are interconnected.

Claim 32. (Canceled)

Claim 33. (Original): The prosthesis of claim 23 wherein the hollow tubular body comprises a thin-walled tube material wherein the center of the thin-walled tube provides the center of the prosthesis.

Claim 34. (Original): The prosthesis of claim 23 wherein the prosthesis further comprises at least one taper along the length of the body.

Claim 35. (Original): The prosthesis of claim 23 wherein the prosthesis further comprises at least one aperture on the body between the proximal end and the distal end.

Claim 36. (Original): The prosthesis of claim 23 wherein the prosthesis further comprises at least one non-circular cross-section along the length of the body.

Claim 37. (Original): The prosthesis of claim 23 wherein the prosthesis further comprises at least one branch of the prosthesis that extends away from the body of the prosthesis.

Claims 38-41 (Canceled)

Claim 42. (Previously presented): The prosthesis of claim 23 wherein the increased pitch at the outside segment is relative to the reduced pitch at the inside segment.

Claim 43. (Previously presented): The prosthesis of claim 23 wherein the wires and their turns have a constant pitch along the length of the segment of curvature.

Claim 44. (Previously presented): The prosthesis of claim 1 wherein the wires have an increased pitch at the outside segment and have a reduced pitch at the inside segment when disposed on a straight mandrel.

Claim 45. (Previously presented): The prosthesis of claim 44 wherein the increased pitch at the outside segment is relative to the reduced pitch at the inside segment.

Claim 46. (New): An endoluminal prosthesis comprising:
a proximal end, a distal end and a hollow tubular body having a central longitudinal axis, the body comprising a stent scaffold of helically wound undulating wires having alternating peaks and valleys to define turns thereat;
the hollow tubular body comprising at least one segment of curvature along a portion of a longitudinal length of the body, wherein the central longitudinal axis of the body is curved along said portion of the longitudinal length of the body throughout the segment of curvature;

Application No.: 09/556,671
Response dated July 15, 2009
Reply to an Office Action of April 15, 2009
Docket No.: 792-21 RCE II
Page 8

the segment of curvature comprising an inside of the curvature and an outside of the curvature;

wherein the wires and their turns are distributed substantially equally and uniformly displaced along the length of the prosthesis, including being distributed substantially equally and uniformly displaced along the length of the segment of curvature, to provide a constant pitch of the wires therealong.